

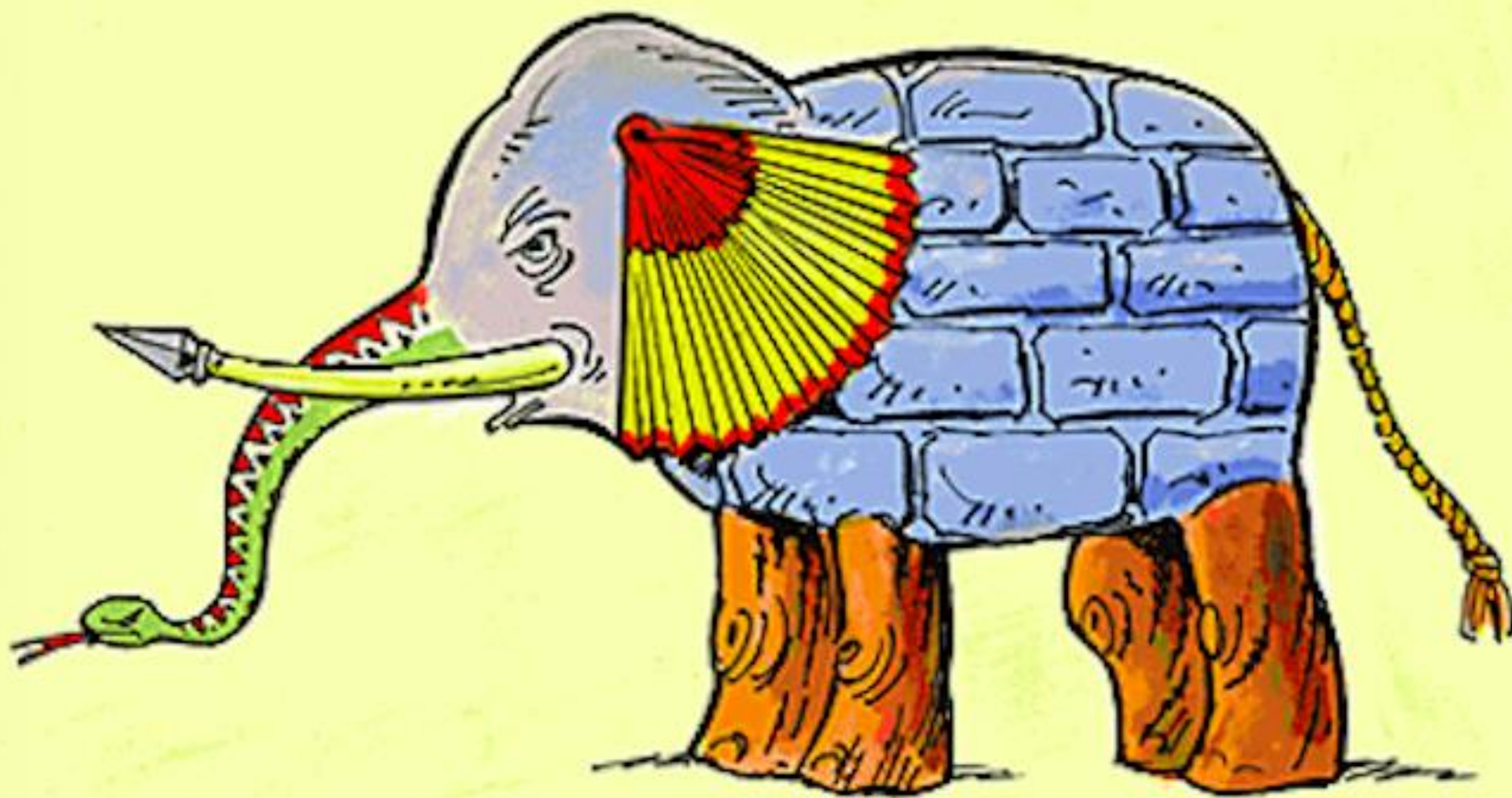
Outside The Box
A
Functional Approach
to
Pain

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Colorado Pain Society
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PAIN







Andrew Taylor Still,
M.D., D.O., founder of
Osteopathic Medicine
circa 1874

Osteopathic Tenets

- “The body is a unit.”
- “Structure and function are interrelated.”
- “The body possesses self-regulatory mechanisms.”
- “The body has the inherent capacity to defend and repair itself.”
- “When normal adaptability is disrupted, or when environmental changes overcome the body’s capacity for self-maintenance, disease may ensue.”

Somatic Dysfunction

def. impaired or altered function of related components of the somatic (body framework) system: skeletal, arthrodiar, and myofascial structures, and related vascular, lymphatic, and neural elements.

OMT

Osteopathic Manipulative Treatment (OMT) is rendered in an effort to restore balance to a patient's autonomic nervous system and to restore proper function to the involved soma, by reducing somatic dysfunctions and acquired maladaptive compensatory strain patterns identified on physical examination.





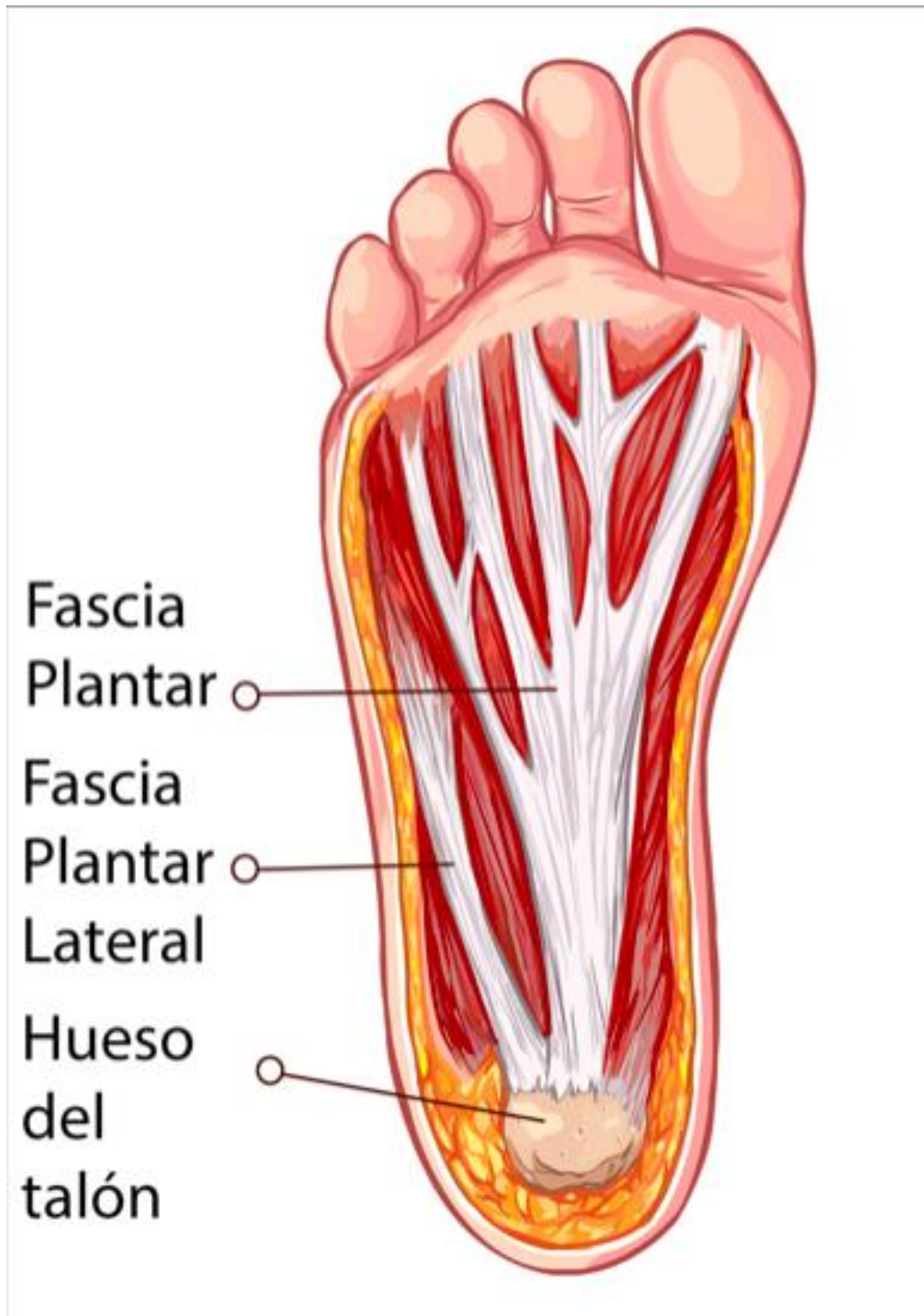


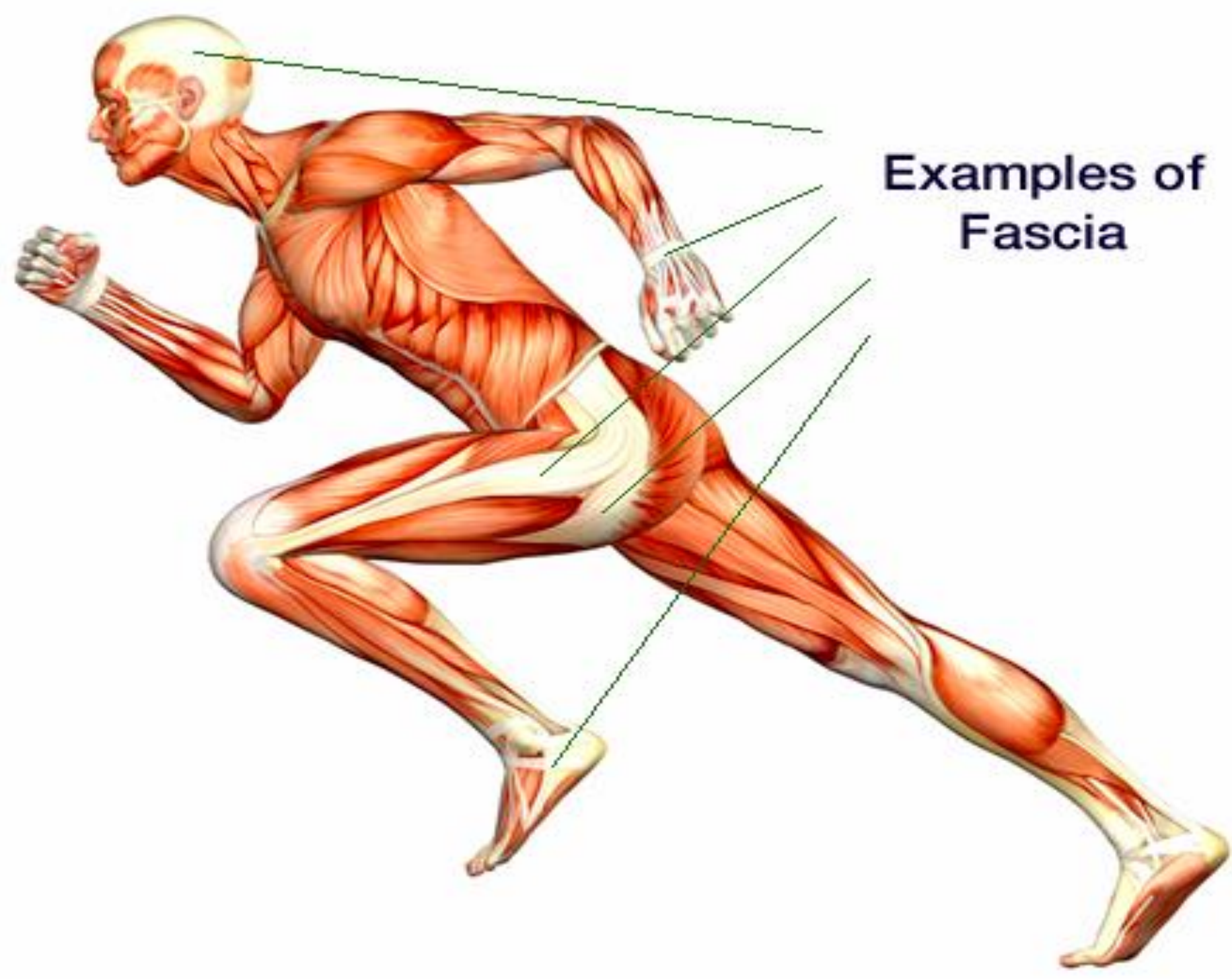


Evaluate and treat the patient's Midline.

The image shows a complex, web-like structure of white, fibrous material, likely fasciae, spread out on a brown, textured surface. The fibers are thin and numerous, creating a dense, interconnected pattern. The word "FASCIA" is overlaid in the center in a bold, white, sans-serif font.

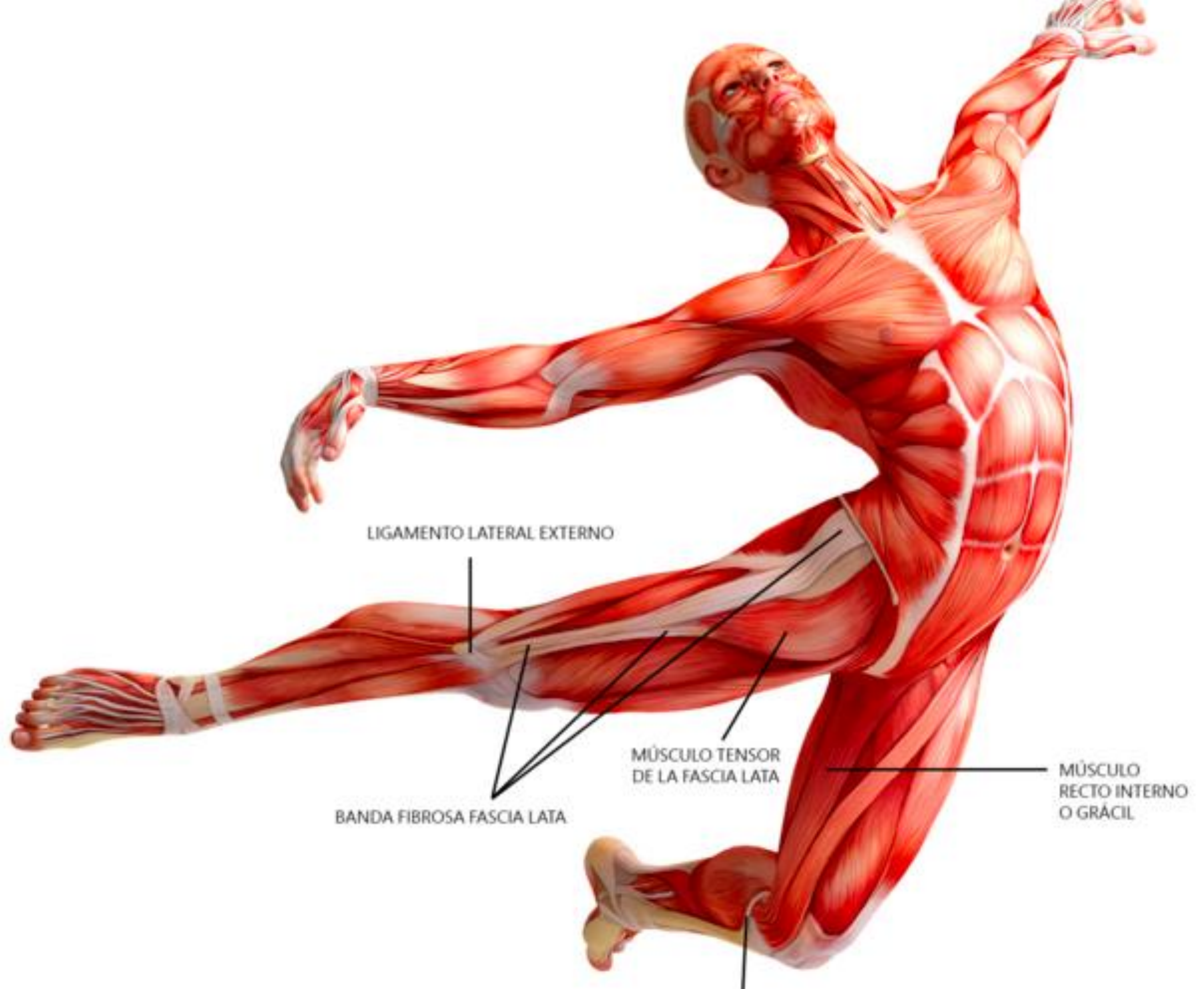
FASCIA





**Examples of
Fascia**





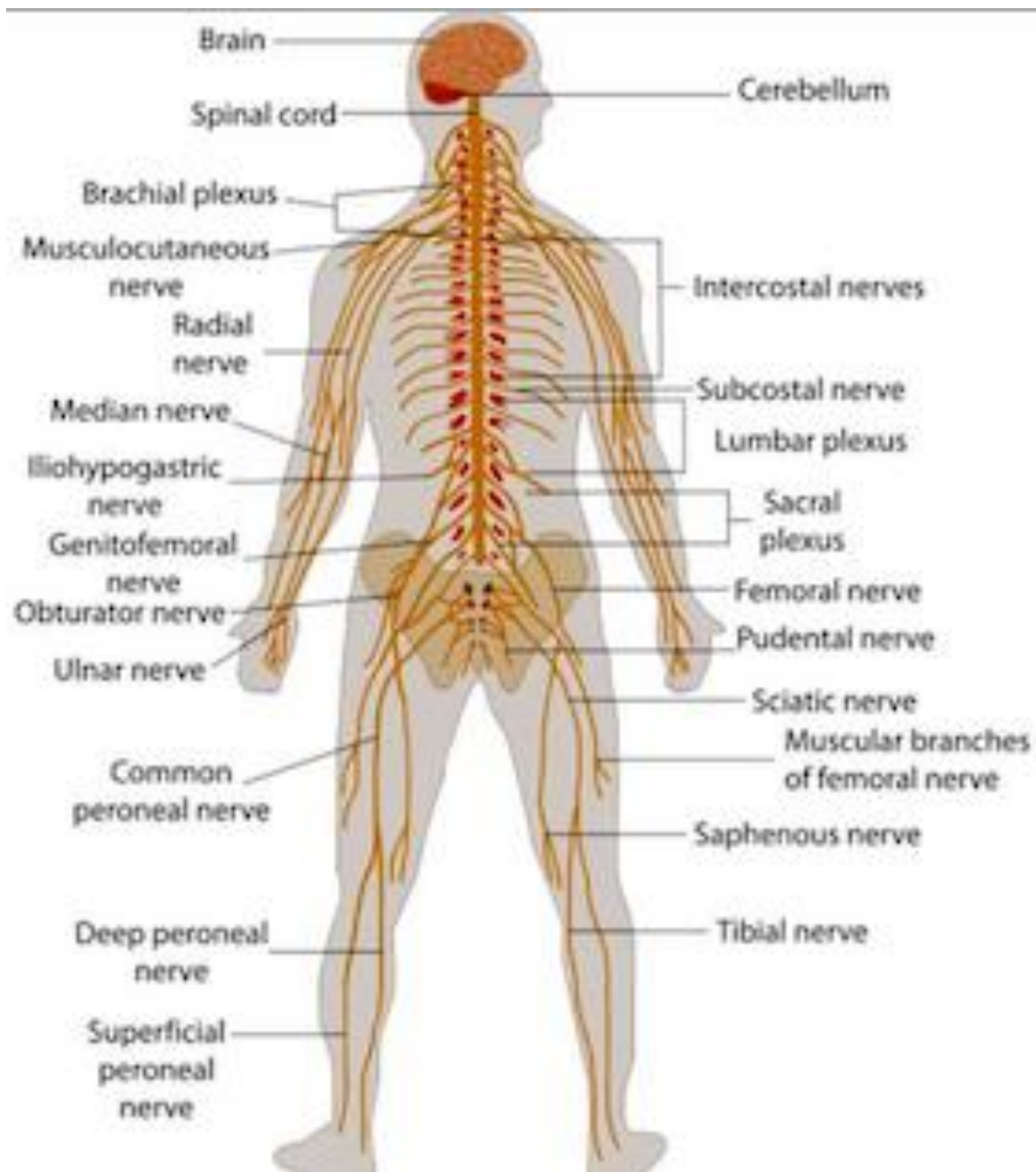
LIGAMENTO LATERAL EXTERNO

BANDA FIBROSA FASCIA LATA

MÚSCULO TENSOR
DE LA FASCIA LATA

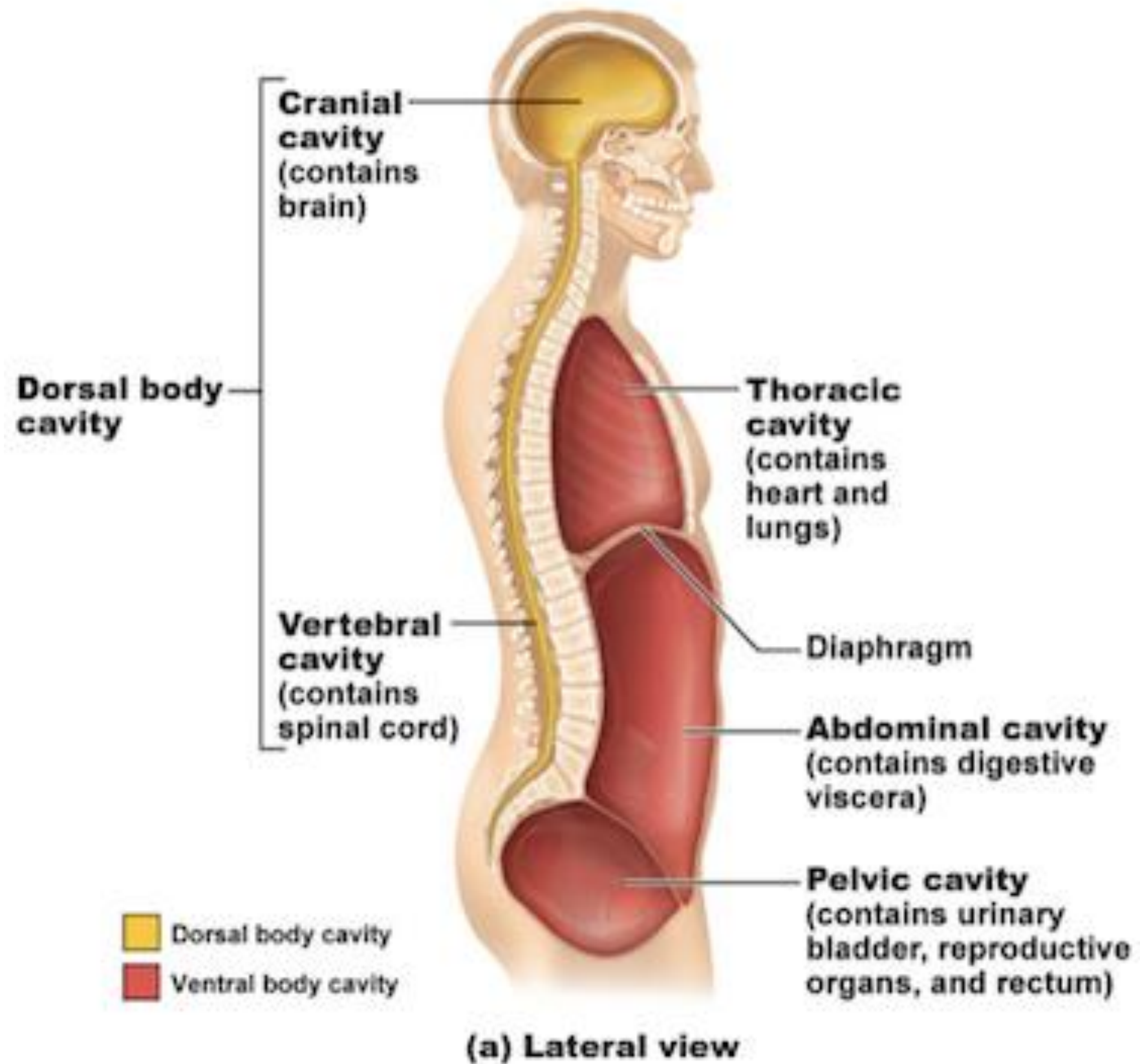
MÚSCULO
RECTO INTERNO
O GRÁCIL







Diaphragms





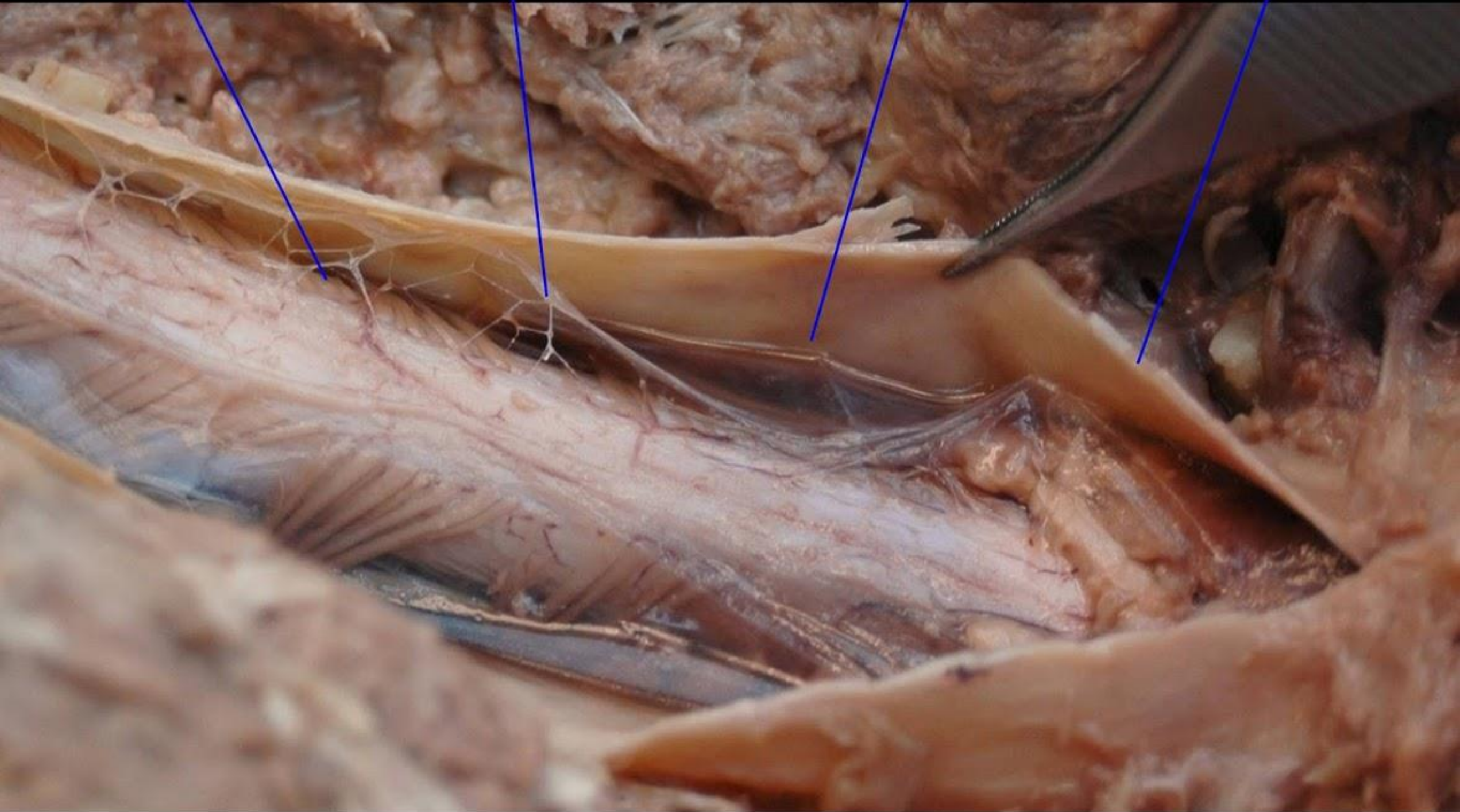
Dura mater, posterior

Subarachnoid
space

Arachnoid mater

Subdural space
(potential)

Dura mater

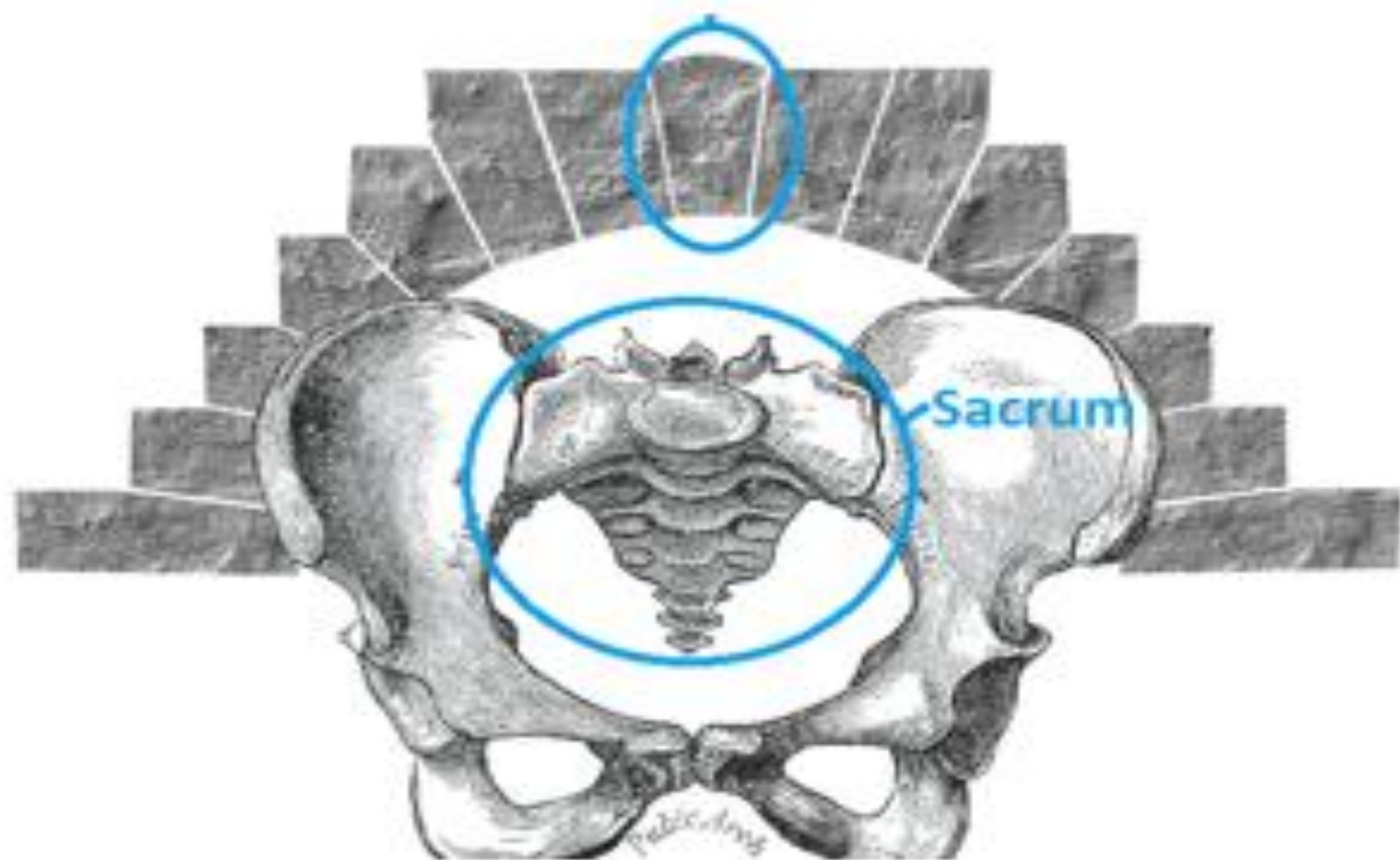


Spinal cord & meninges, posterolateral

BlueLink

© B. Kathleen Alsup & Glenn M. Fox

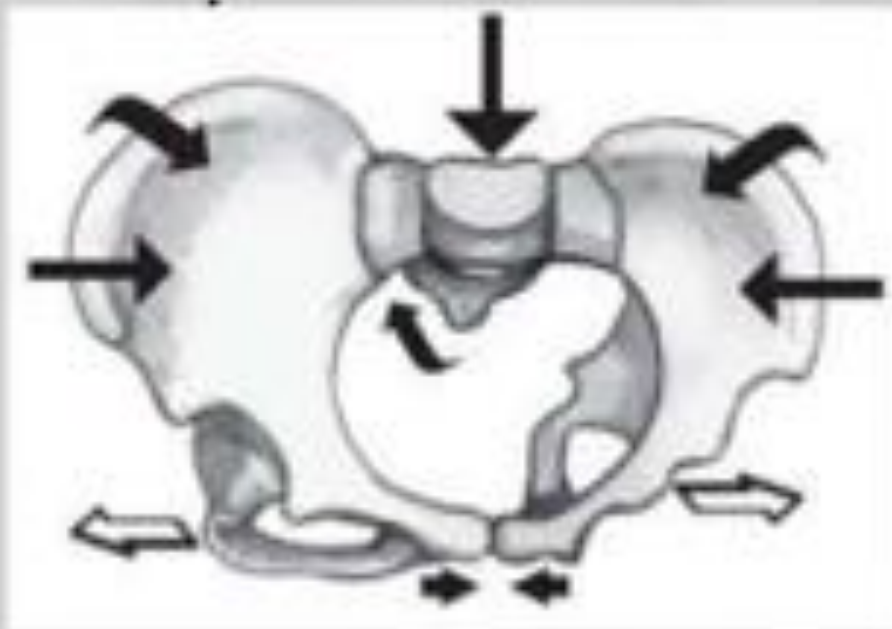




The Keystone

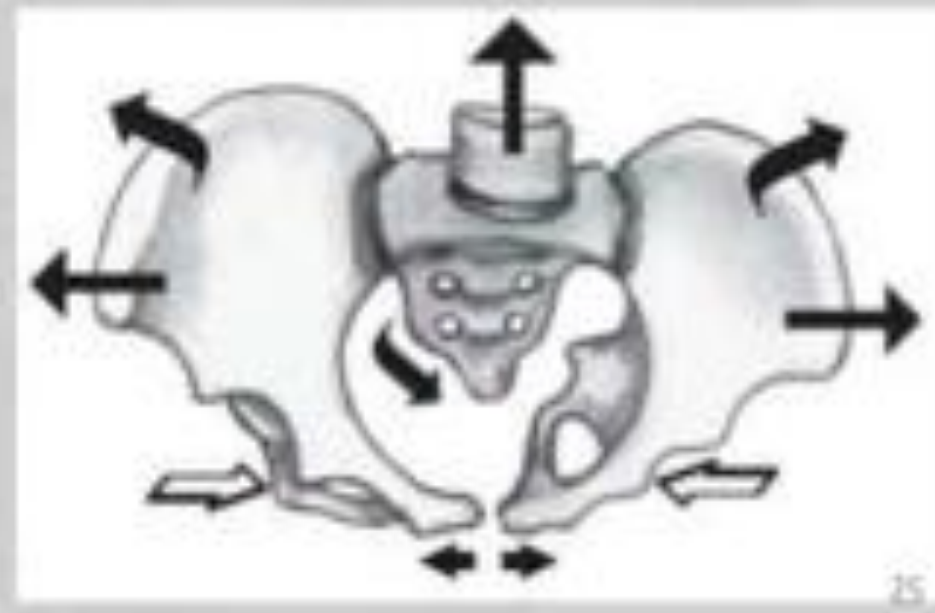
NUTATION

- Movement of sacral promontory anteriorly & inferiorly
- Posterior ilium-on-sacrum rotation



COUNTER NUTATION

- Anterior tip of sacral promontory moves posteriorly & superiorly
- Anterior ilium-on-sacrum rotation



Treatment Sequence

- Pubic Symphysis Dysfunctions
- Innominate Shears
- Sacral Dysfunctions
- Lumbar Type II (single segment) Dysfunctions
- Correct Short Leg if present
- Correct Muscle Imbalance with Home Exercise and Retraining Program

Muscle Imbalance

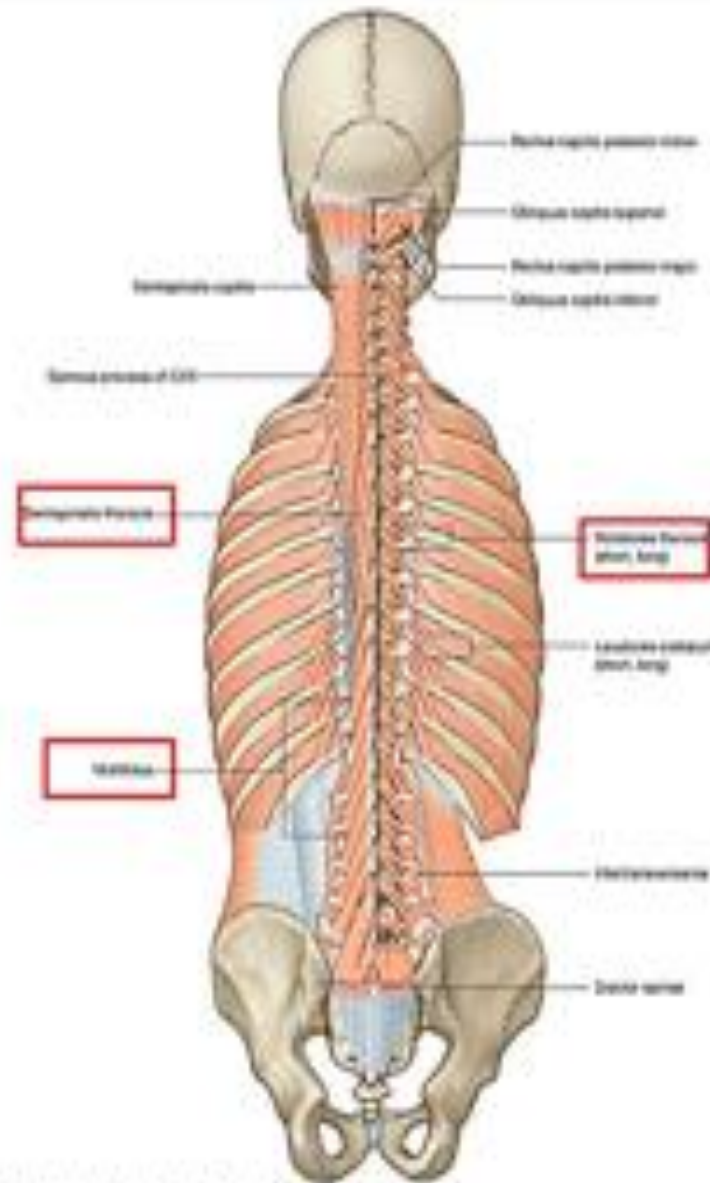
- ✎ Greater than 95 % of population has significant muscle imbalance between trunk and lower extremities.
- ✎ Primarily tight hip flexors, tight Piriformis, tight adductors, weak abdominals, weak Gluteus Maximus and Medius.
- ✎ Poor proprioceptive balance and trunk rotator control.



Loss of Core Control

Deep Intrinsic Back Muscles

Transversospinal group
(semispinalis, multifidus & rotators)



Drake: Gray's Anatomy for Students, 2nd Edition.
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Single vertebral segment dysfunctions inhibit Transversospinal function.

These work synergistically with Transversus Abdominus and Internal Obliques, Thoracolumbar Fascia, Iliopsoas and Quadratus Lumborum.

Inhibition of Transversospinal mm leads to decoupling of entire core mechanism.

Core Control is Key

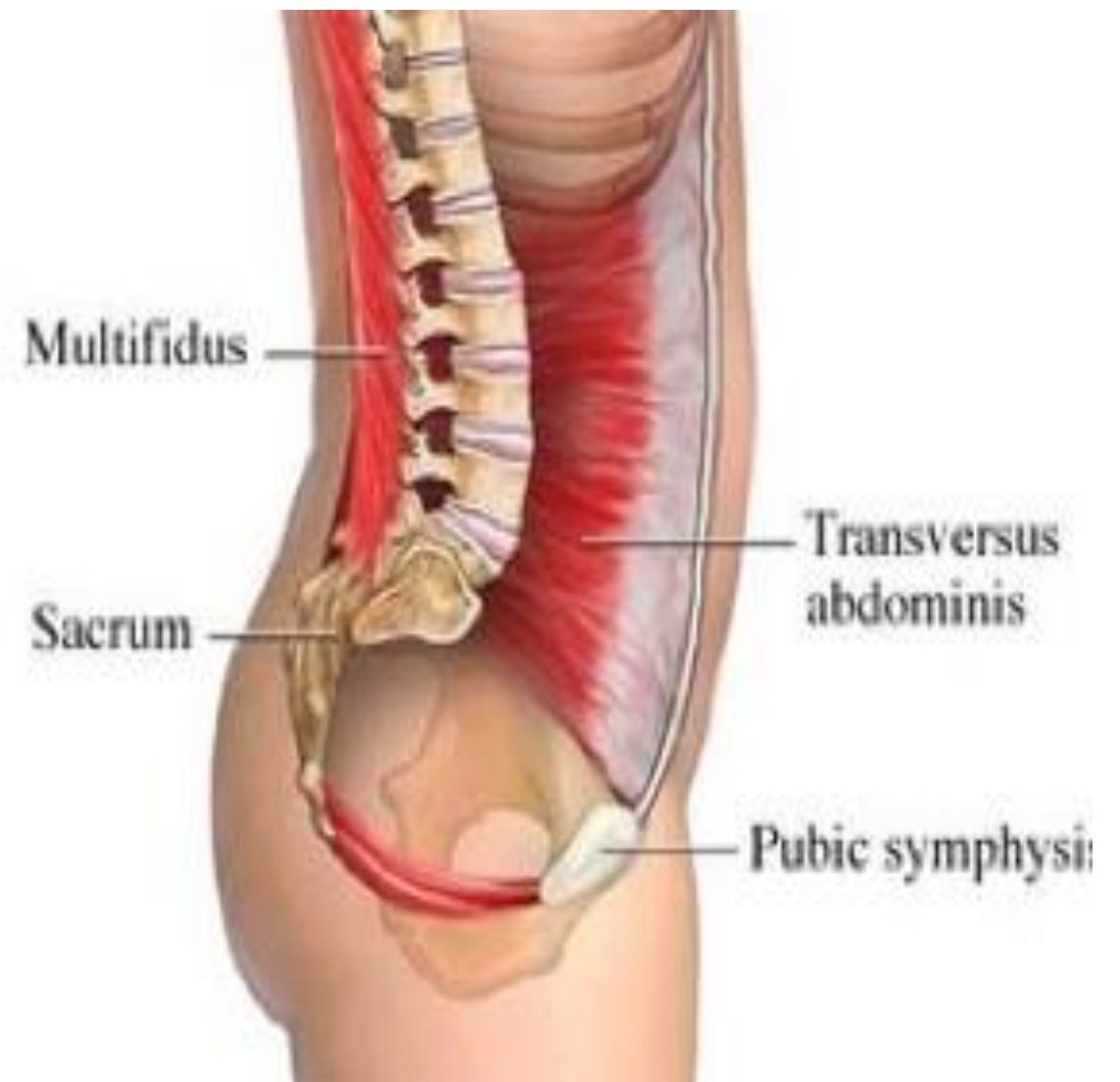
- Abdominal muscles notoriously weak.

- Transversus Abdominus (TA) essential for core control.

- TA fires first with all upper and lower extremity motion.

- In patients with persistent or recurrent LBP TA shows delayed firing.

- Leads to decreased core control and increased instability.





Anti-inflammatory Foods







Thank You!